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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BILL SERRA, SALIL PRADHAN, and ANTONI N. DRUDIS

Appeal 2009-004051
Application 10/809,958[1]
Technology Center 2100

Decided: April 6, 2010

Before JOSEPH L. DIXON, CAROLYN D. THOMAS, and
JAMES R. HUGHES, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] Application filed March 25, 2004. The real party in interest is Hewlett-Packard Development Co., L.P. (App. Br. 4.)

STATEMENT OF THE CASE

The Appellants appeal the Examiner's rejection of claims 1-12 under authority of 35 U.S.C. § 134(a). The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' Invention

Appellants invented a method and monitoring system for monitoring a location; e.g., a security system. The system includes multiple sensor elements and cameras, a display unit for displaying a representation of a network of sensor elements and a video stream from one of the cameras, a navigation unit for navigating the network of displayed sensor elements, and a processing unit for selecting one of the cameras as the video stream source based on the navigation position in the network of sensor elements. (Spec. 1, 2.)[2]

Representative Claim

Independent claim 1 further illustrates the invention. It reads as follows:

> 1. A monitoring system comprising:
>
> a plurality of sensor elements for distribution at a location,
>
> a plurality of cameras for capturing video data of the location,

[2] We refer to Appellants' Specification ("Spec.") and Appeal Brief ("Br.") filed December 3, 2007. We also refer to the Examiner's Answer ("Ans.") mailed January 29, 2008.

a display unit for displaying a graphical representation of a network of the sensor elements throughout the location and a video stream from any one of the cameras,

a navigation unit for navigating through the network of sensor elements displayed by the display unit, and

a processing unit for selecting one of the cameras as the source of the video stream based on a current navigation position in the network of sensor elements.

References

The Examiner relies on the following references as evidence of unpatentability:

Crain	US 4,962,473	Oct. 9, 1990
Jacoby	US 5,768,552	Jun. 16, 1998
Monroe	US 2002/0097322 A1	Jul. 25, 2002

Rejections on Appeal

The Examiner rejects claims 9-12 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

The Examiner rejects claims 1, 2, 4-6, 8-10, and 12 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Crain and Monroe.

The Examiner rejects claims 3, 7, and 11 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Crain, Monroe, and Jacoby.

ISSUES

Based on Appellants' contentions, as well as the findings and conclusions of the Examiner, the pivotal issues before us are as follows.

1. Does the Examiner err in rejecting the claims under 35 U.S.C. § 101? The issue turns on whether the claimed subject matter is statutory subject matter.

2. Does the Examiner err in finding the combination of the Crain and Monroe references collectively teaches or suggests "navigating through the network of sensor elements displayed by the display unit, and . . . selecting one of the cameras as the source of the video stream based on a current navigation position in the network of sensor elements" as recited in Appellants' claim 1?

3. Does the Examiner err in finding the combination of the Crain, Monroe, and Jacoby references collectively teaches or suggests "navigating through a displayed network of sensor elements, selecting one of the cameras at the location as the source of a video stream based on a current navigation position in the network of sensor elements, and displaying the video stream from the selected camera" (Br. at 17)?

FINDINGS OF FACT (FF)

Appellants' Specification

1. Appellants' Specification defines a computer readable medium:

> This computer readable media may comprise, for example, RAM contained within the system. Alternatively, the instructions may be contained in another computer readable media (e.g. an image-processing module) and directly or indirectly accessed by the computer system. Whether contained in the computer system or elsewhere, the instructions may be stored on a variety of machine readable storage media, such as a Direct Access Storage Device (DASD) (e.g., a conventional "hard drive" or a RAID array), magnetic data storage diskette, magnetic tape, electronic non-volatile memory, an optical

> storage device (for example, CD ROM, WORM, DVD,), or other suitable computer readable media including transmission media such as digital, analog, and wireless communication links.

(Spec. 6.)

Crain, Monroe, and Jacoby References

2. We adopt the Examiner's findings regarding the Crain and Monroe references (Ans. 4-7 and 9-12), as well as the Crain, Monroe, and Jacoby references (Ans. 7-8 and 12-13) as our own.

PRINCIPLES OF LAW

Burden on Appeal

The allocation of burden requires that the United States Patent and Trademark Office (USPTO) produce the factual basis for any rejection in order to provide an applicant with notice of the reasons why the applicant is not entitled to a patent on the claim scope sought – the so-called "*prima facie* case." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (the initial burden of proof is on the USPTO "to produce the factual basis for its rejection of an application under sections 102 and 103") (quoting *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967)).

The Board of Patent Appeals and Interferences' (Board's) role on appeal is to, "review adverse decisions of examiners upon applications for patents." 35 U.S.C. § 6(b) (2008). An appellant has the opportunity on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn,* 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an

applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998), *overruled in part on other grounds*, *KSR*, 550 U.S. at 422).

The Board panel then reviews the rejection for error based upon the issues identified by appellant, and in light of the arguments and evidence produced thereon. *See Oetiker*, 977 F.2d at 1445 ("In reviewing the examiner's decision on appeal, the Board must necessarily weigh all of the evidence and argument.") (emphasis added); *see also* 37 C.F.R. § 41.37(c)(1)(vii) (appeal brief must include "[t]he contentions of appellant with respect to each ground of rejection presented for review in paragraph (c)(1)(vi) of this section, and the basis therefor, with citations of the statutes, regulations, authorities, and parts of the record relied on"). Specifically, the Board reviews the particular finding(s) contested by an appellant anew in light of all the evidence and argument on that issue.

Statutory Subject Matter

Our reviewing court has recently held that transitory, propagating signals, such as carrier waves, are not within any of the four statutory categories (process, machine, manufacture or composition of matter). Therefore, a claim directed to computer instructions embodied in a signal is not statutory under 35 U.S.C. § 101. *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007).

Obviousness

A claimed invention is not patentable if the subject matter of the claimed invention would have been obvious to a person having ordinary skill in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13 (1966). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art. *Graham*, 383 U.S. at 17. *See also KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasizes "the need for caution in granting a patent based on the combination of elements found in the prior art," and stated that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, 550 U.S. at 415-16. The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 417. The operative question is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

Consistent with *KSR*, the Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR,* 550 U.S. at 416). The Federal Circuit relied in part on the fact that *Leapfrog* had presented no evidence that the proposed modification was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* at 1162.

Similarly, the Federal Circuit recently found that adapting existing electronic processes to incorporate modern technology is obvious when the combination is within an ordinarily skilled artisan's ability:

> When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1327 (Fed. Cir. 2008) (quoting *KSR,* 550 U.S. at 421).

ANALYSIS

Issue 1: The Rejection of Claims 9-12 under 35 U.S.C. § 101

Appellants contend that:

> Claims 9-12 recite a computer readable medium[,] . . . . [c]laims 9-12 do not recite the limitation that the computer readable medium includes 'transmission media such as digital, analog, and wireless communication links[,]' . . . [the] Examiner has inappropriately

> imported an alleged limitation of an embodiment of the invention described in the specification into an interpretation of the claims at issue.

(Br. 7.) The Examiner finds that Appellants' claim 1 recites a computer readable medium, defined on page 6 of Appellants' Specification, which includes "electromagnetic waves or signals" and "constitutes nonstatutory matter." (Ans. 3.) Accordingly, we decide the question of whether the claimed subject matter is statutory.

Appellants' claim 9 recites a "computer readable medium." We agree with the Examiner that Appellants' computer readable storage medium may include non-statutory subject matter – i.e., signals. Appellants' Specification describes such computer readable media as including "transmission media such as digital, analog, and wireless communication links." (FF 1.) We find that such transmission media implicate a carrier wave or a signal modulated by a carrier over a transmission medium. Therefore, claims 9-12 encompass the use of a computer data signal embodied in a carrier wave to store, transfer, combine, compare, or manipulate information. A computer data signal embodied in a carrier wave is a transitory, propagating signal not within any of the four statutory categories and, therefore, non-statutory. *See In re Nuijten*, 500 F.3d at 1357. It follows that claims 9-12 are directed to non-statutory subject matter.

Issue 2: Rejection of Claims 1, 2, 4-6, 8-10, and 12 under 35 U.S.C. § 103(a)

Appellants argue the patentability of claims 1, 2, 4-6, 8-10, and 12 as a group. (Br. 10-13.) We select independent claim 1 as the representative

claim. We therefore treat claims 2, 4-6, 8-10, and 12 as standing or falling with representative claim 1. See 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Appellants contend that the combination of the Crain and Monroe references collectively does not "navigating through a displayed network of sensor elements, selecting one of the cameras at the location as the source of a video stream based on a current navigation position in the network of sensor elements, and displaying the video stream from the selected camera" (Br. at 11, 12). The Examiner finds that the prior art teaches each feature of Appellants' claim 1 and maintains that the claim is properly rejected. (FF 2.) Specifically, the Examiner finds that Crain teaches "a navigation unit for navigating through the network of sensor elements displayed by the display unit (in column 11 lines 24-28 and in column 17 lines 46-51 in view of figure 11), and a processing unit for selecting one of the cameras as the source of the video stream (in column 6 lines 50-57[])]." (Ans. 4-5; *see also* Ans. 9-12.) The Examiner also finds that Monroe teaches "selecting one of the cameras as the source of the video stream based on a current navigation position in the network of sensor elements." (Ans. 5; *see also* Ans. 9-12.). Accordingly, we decide the question of whether the Examiner erred in finding the combination of the Crain and Monroe references collectively teaches or suggests the disputed limitation as recited in Appellants' claim 1.

After reviewing the record on appeal, we agree with the Examiner's findings and find the Crain and Monroe references collectively teach the disputed limitation. We begin our analysis by construing Appellants' claim 1. We determine the scope of the claims in patent applications not solely based on the claim language, but upon giving claims "their broadest

reasonable interpretation consistent with the [S]pecification" and "in light of the [S]pecification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (citations omitted). Appellants' claim 1 recites a limitation directed to a navigation unit for navigating through the network of sensor elements displayed by the display unit. We broadly but reasonably construe this limitation to simply mean a unit (hardware, software or combination thereof) for guiding a user though (navigating) the network (group) of displayed sensor elements. Appellants' claim 1 also recites a limitation directed to a processing unit for selecting one of the cameras as the source of the video stream based on a current navigation position in the network of sensor elements. We broadly but reasonably construe this limitation to simply mean a unit (hardware, software or combination thereof) for selecting one of the cameras based on a currently selected sensor of a group of sensors displayed on a location map displaying the group of sensors (a current navigation position in the network of sensor elements).

Appellants do not dispute that Crain teaches a security (emergency action) system including multiple sensor elements about a location, multiple cameras capturing video data of the location, a display unit that displays information concerning the sensor elements (displaying a graphical representation of a network of the sensor elements) and a video stream from at least one of the cameras. As explained by the Examiner, Crain discloses a user interface computer with a display that allows a user to scroll through a list of all sensors at a location, review information about the sensors, and control any of the sensors. (Ans. 4-5, 9-12; Crain, col. 11, ll. 24-28; Crain, col. 17, ll. 46-51.) We find that Appellants' navigating unit for guiding a

user though the displayed group of sensor elements reads on Crain's user interface computer displaying a scrollable list of all the sensors.

As explained by the Examiner, Crain discloses environment and security processor (ESP) that automatically controls video switching (Ans. 4-5, 9-12; Crain, col. 6, ll. 9-57). Monroe describes selecting one of the camera video feeds based on the moving a cursor to and clicking on a sensor or camera icon displayed on a location map (Ans. 5, 9-12; Monroe, ¶¶ [0019], [0021]). Thus, we find that Appellants' processing unit for selecting one of the cameras based on a currently selected sensor of a group of sensors reads on Crain's ESP combined with Monroe's selection of a camera video feed based on selecting a sensor icon displayed on a location map.

We are not persuaded by Appellants' contrary arguments that neither Crain, nor Monroe individually teach the disputed feature. (Br. 11, 12.) *See In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) ("Non-obviousness cannot be established by attacking references individually"). We find that combining Crain's ESP for automatically switching video feeds combined with Monroe's selection of a camera video feed based on selecting a sensor icon displayed on a location map is tantamount to the predictable use of prior art elements according to their established functions – an obvious improvement. *See KSR*, 550 U.S. at 417. We agree with the Examiner that it would have been obvious to one of skill in the art at the time of the invention to combine Crain's ESP with Monroe's sensor selection technique.

Appellants have provided no persuasive evidence on this record establishing that these improvements would have been beyond the level of skilled artisans. *See id.* ("[I]f a technique has been used to improve one

device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill."); *Muniauction*, 532 F.3d at 1327; *Leapfrog*, 485 F.3d at 1162.

Moreover, the Examiner provides detailed findings and conclusions with respect to the Crain and Monroe references (Ans. 4-5, 9-12.) Appellants did not file a Reply Brief, nor did Appellants provide any persuasive evidence supporting the assertions of alleged error in the Examiner's position. Accordingly, Appellants have not have not persuaded us to find error in the Examiner's obviousness rejection of claims 1, 2, 4-6, 8-10, and 12.

Issue 3: Rejection of Claims 3, 7, and 11 under 35 U.S.C. § 103(a)

Appellants do not separately argue dependent claims 3, 7, and 11. They instead rely on their previous arguments made with respect to independent claim 1. (*See* Br. 13-18 and *compare* Br. 11-12.) We address only those arguments that Appellants present in the Brief. Arguments that Appellants could have made but chose not to make in the Brief are waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

As we previously explained with respect to claim 1, *supra*, we find Appellants' arguments unpersuasive with respect to the obviousness rejection of claim 1. Accordingly, we affirm the Examiner's obviousness rejection of claims 3, 7, and 11.

CONCLUSION OF LAW

On the record before us, we find the Examiner did not err in rejecting claims 9-12 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. We also find Appellants have not established that the Examiner erred in finding the combination of the Crain and Monroe references collectively teaches or suggests "navigating through the network of sensor elements displayed by the display unit, and . . . selecting one of the cameras as the source of the video stream based on a current navigation position in the network of sensor elements" as recited in Appellants' claim 1. We further find Appellants have not established that the Examiner erred in finding the combination of the Crain, Monroe, and Jacoby references collectively teaches or suggests navigating through a displayed network of sensor elements, selecting one of the cameras at the location as the source of a video stream based on a current navigation position in the network of sensor elements, and displaying the video stream from the selected camera.

DECISION

We affirm the Examiner's rejection of claims 9-12 under 35 U.S.C. § 101.

We affirm the Examiner's rejection of claims 1-12 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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